

## United States Patent and Trademark Office



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.uspto.gov

PPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
09/755,290	01/05/2001	Jongmin Lee	89190.090700/DP-301278	4652
759	90 06/20/2002	V		
John VanOphem, Esq. Delphi Technologies, Inc. Mail Code 480414420 P.O. Box 5052			EXAMINER	
			CORRIGAN, JAIME W	
			ART UNIT	PAPER NUMBER
Troy, MI 4800	7		3748	TATER NOMBER
			DATE MAILED: 06/20/2002	
			DATE MAILED: 06/20/2002	

Please find below and/or attached an Office communication concerning this application or proceeding.

		<i>e</i>				
	Application No.	Applicant(s)				
Office Action Commons	09/755,290	LEE ET AL.				
Office Action Summary	Examiner	Art Unit				
	Jaime W Corrigan	3748				
The MAILING DATE of this communication app ars on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  Status						
1)☐ Responsive to communication(s) filed on						
, ,						
3)☐ Since this application is in condition for allow		ers, prosecution as to the merits is				
closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. <b>Disposition of Claims</b>						
4)⊠ Claim(s) <u>1-9,12-16,18-21 and 23-25</u> is/are pending in the application.						
4a) Of the above claim(s) 10,11,17 and 22 is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1-3,6-9,12,15,16,18-21 and 23-25</u> is/are rejected.						
7)⊠ Claim(s) <u>4,5,13 and 14</u> is/are objected to.						
8) Claim(s) are subject to restriction and/or election requirement.						
Application Papers						
9)☐ The specification is objected to by the Examin	ner.					
10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.						
If approved, corrected drawings are required in reply to this Office action.						
12) The oath or declaration is objected to by the Examiner.						
Priority under 35 U.S.C. §§ 119 and 120						
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a) All b) Some * c) None of:						
1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority document	nts have been received in App	olication No				
<ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>						
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).						
a)  The translation of the foreign language provisional application has been received.						
15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.						
Attachment(s)						
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6) Other:						
J.S. Patent and Trademark Office						

Art Unit: 3748

#### **DETAILED ACTION**

### Election/Restrictions

Applicant's election of Species of Figures 1-3B, claims 1-9, 12-16, 18-21, 23-25 in Paper No. 3 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim1 is rejected under 35 U.S.C. 102(b) as being anticipated by Voigt (PN 5,544,628).

Regarding claim 1 Voigt discloses a deactivation rocker arm assembly (See Figure 1, Abstract, Column 1 Lines 1-40); and a free motion spring assembly (See Figure 2 (16), (37), Column 3 Lines 14-17, Column 4 Lines 8-11).

# Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

Art Unit: 3748

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 12, 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Hu (PN 6,244,257).

Hu discloses an elongate rocker arm having an end (See Figure 8 (130a)), an aperture defined by said end (See Figure 8 (Not numbered but clearly visible)); a center post slidingly disposed within said aperture (See Figure 8 (70a)), said center post configured for engaging a valve stem of a valve of an internal combustion engine (See Column 8 Lines 7-9); and coupling means selectively coupling together and decoupling said center post and said rocker arm (See Figure 8 (100a), (82a), (64a), Column 8 Lines 7-14).

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-3, 6-9, 15-16, 18-21, 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voigt (PN 5,544,628) in view of Hu (PN 6,244,257).

Art Unit: 3748

Voigt discloses the invention as recited in claim 1 above and further discloses an outer spring retainer (See Figure 1 (15)) surrounding a portion of the valve stem; an inner spring surrounding a portion of the valve stem (See Figure 2 (37)), and an outer spring surrounding (See Figure 2 (16)) said inner spring (See Figure 2 (37)), said rocker arm includes elongate arms (See Figure 3 (Not numbered but clearly visible)), said arms being one of attached to and integral with said body of said rocker arm and extending therefrom (See Figure 3 (Not numbered but clearly visible)), said arms engaging one of said inner spring retainer and said outer spring retainer (See Figure 3 (14)); said arms extend in a direction that is generally parallel with said body of said rocker arm (See Figure 3 (Not numbered but clearly visible)), said outer spring biasing said outer spring retainer into engagement with said arms (See Column 3 Lines 14-17), said inner spring retainer configured for being coupled to the valve stem (See Figure 2 (36)); said outer spring retainer includes a rim (See Figure 3 (Not numbered but clearly visible)), said outer spring normally biasing said rim into engagement with a periphery of said inner spring retainer (See Figure 2 (16), (37), (14), (36)); said rocker arm defines a roller orifice (See Figure 2 (Not numbered but clearly visible)), a roller being disposed within said roller orifice and being coupled to said rocker arm (See Figure 2 (31)), said roller configured for engaging a cam of the internal combustion engine (See Column 3 Lines 38-43).

Voigt fails to disclose an elongate rocker arm, an aperture defined by said rocker arm; a center post slidingly disposed within said aperture, said center post configured for engaging a valve stem of a valve of an internal combustion engine; and coupling

Art Unit: 3748

means selectively coupling together and decoupling said center post and said rocker arm; said rocker arm includes an end, said aperture being defined by said end; an inner spring retainer surrounding a portion of the valve stem; to the valve stem; said inner spring being disposed between a disk cap associated with the valve stem and said inner spring retainer; said outer spring being disposed between said outer spring retainer and the disk cap;

Hu teaches that it is conventional in the art to utilize an elongate rocker arm (See Figure 8 (130a)), an aperture defined by said rocker arm (See Figure 8 (Not numbered but clearly visible)); a center post slidingly disposed within said aperture (See Figure 8 (70a)), said center post configured for engaging a valve stem of a valve of an internal combustion engine (See Column 8 Lines 7-9); and coupling means selectively coupling together and decoupling said center post and said rocker arm (See Figure 8 (100a), (82a), (64a), Column 8 Lines 7-14); said rocker arm includes an end (See Figure 8), said aperture being defined by said end; said inner spring being disposed between a disk cap (See Figure 8 (20a)) associated with the valve stem and said inner spring retainer (See Figure 8 (Not numbered but clearly visible); said outer spring (See Figure 8 (32a)) being disposed between said outer spring retainer (See Figure 8 (Not numbered but clearly visible)) and the disk cap (See Figure 8 (20a)).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the center post engaging a valve stem taught by Hu in the Voigt device since it would improve accuracy of deactivation of the valve.

Art Unit: 3748

# Allowable Subject Matter

Page 6

Claims 4-5,13-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Morita (PN 5,239,952), Muir (PN 5,584,267) disclose similar deactivatable valve systems.

Any inquiry concerning this communication from the examiner should be directed to Examiner Jaime Corrigan whose telephone number is (703) 308-2639. The examiner can normally be reached on Monday - Friday from 8:30 a.m. – 6:00 p.m. 2<sup>nd</sup> Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (703) 308-2623. The fax number for this group is (703) 308-7763.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

JC

Jaime Corrigan

atent Examiner

Art Unit 3748

June 17, 2002

THOMAS DENION
PERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700